

<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/734,632	BLATZ ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Jason M Perilla	2634	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to July 6, 2004.
2. ☒ The allowed claim(s) is/are 1-22.
3. ☒ The drawings filed on 06 July 2004 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

**Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |   |
|---|---|
| <ol style="list-style-type: none"> <li>1. <input type="checkbox"/> Notice of References Cited (PTO-892)</li> <li>2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)</li> <li>3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br/>Paper No./Mail Date _____</li> <li>4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br/>of Biological Material</li> </ol> | <ol style="list-style-type: none"> <li>5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)</li> <li>6. <input type="checkbox"/> Interview Summary (PTO-413),<br/>Paper No./Mail Date _____.</li> <li>7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment</li> <li>8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance</li> <li>9. <input type="checkbox"/> Other _____.</li> </ol> |
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### EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Walter F. Fasse on September 9, 2004.

The application has been amended as follows:

**Claims 1, 6, 7, 12, and 22 in the application are replaced in their entirety by the following amended versions of the claims.**

1. Procedure to increase the manipulation security for a bi-directional contactless data transmission by means of a first transmission and receiver unit (BA) and a second transmission and receiver unit (TR)
  - wherein
  - the second transmission and receiver unit (TR), on receipt of a transmitted electromagnetic signal (fULmod) from the first transmission and receiver unit (BA) as a received electromagnetic signal, will convert this process the received electromagnetic signal, including conversion with regard to at least one selected physical quantity that characterizes the signal; and modulation with data to form into a response signal (fDLmod) and re-transmit the response signal to the first transmission and receiver unit (BA), and

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- on receipt of the response signal ( $f^{DL}mod$ ), the first transmission and receiver unit (BA) will convert this response signal with regard to the selected physical quantity thereof into a test signal ( $f^{UL}$ ) such that this will compensate the conversion effected in the second transmission and receiver unit (TR), and
  - in the first transmission and receiver unit (BA) a comparison between the test signal ( $f^{UL}$ ) and the transmitted electromagnetic signal ( $fUL$ ) is effected, and
  - as a result (CF) of this the comparison a value is assigned to a manipulation indication.
6. Procedure according to Claim 1, wherein said modulation with data comprises data information is modulated onto the electromagnetic signal ( $FUL, f^{DL}$ ) by means of frequency or amplitude modulation.
7. Procedure according to Claim 1 wherein the comparison ( $SP$ ) is effected only by means of the frequency of each of the electromagnetic signal and the response signal ( $f^{UL}, fUL$ ) ( $fUL, f^{UL}$ ).
12. A method of carrying out a bi-directional contactless data transmission with increased security between a first unit and a second unit, comprising the steps:
- a) emitting from said first unit a forward signal having an original value of a characteristic physical parameter selected from the group consisting of a frequency, a phase, and an amplitude;

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- b) receiving said forward signal in said second unit;
- c) determining a received value of said characteristic physical parameter of said forward signal as received in said second unit;
- d) modifying said received value of said characteristic physical parameter according to a defined first modification to produce a modified value of said characteristic physical parameter;
- e) generating and emitting from said second unit a response signal having said modified value of said characteristic physical parameter wherein the step of generating includes modulating with data;
- f) receiving said response signal in said first unit;
- g) determining a returned value of said characteristic physical parameter of said response signal as received in said first unit;
- h) modifying said returned value of said characteristic physical parameter according to a defined second modification to produce a resultant value of said characteristic physical parameter;
- i) comparing said resultant value to said original value of said characteristic physical parameter to determine a difference therebetween; and
- j) responsive to and dependent on said difference, determining whether to block the data transmission between said first and second units.

22. The method according to claim 12, wherein said data comprises an authorization code, and further comprising, ~~in parallel or series with said steps a) to j),~~ additional

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~~steps of transmitting an authorization code from said second unit to said first unit,~~  
and recovering and comparing said authorization code with a validation code in said first unit to determine whether to permit the data transmission between said first and second units.

**Claims 3-5, 8, 10 and 11 are amended as follows:**

Regarding claim 3, in line 3, "the value 0" is replaced by –a value 0--.

Regarding claim 4, in line 2, "this comparison" is replaced by –the comparison—  
and the reference (SP) is stricken.

Regarding claim 5, the reference (SP) in line 2 is stricken.

Regarding claim 8, in line 6, the word "electromagnetic" is replaced by –  
response—.

Regarding claim 10, in line 4, "the value 0" is replaced by –a value 0--.

Regarding claim 11, in line 4, "the value 0" is replaced by –a value 0--.

***Allowable Subject Matter***

2. Claims 1-22 are allowed.

3. The following is an examiner's statement of reasons for allowance:

Claims 1-22 are allowed because the prior art of record fails to anticipate or provide among them teachings which would lead one skilled in the art to arrive at the claimed invention. In particular, the prior art fails to disclose or teach conversion with

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respect to a characteristic physical property *and modulation with data* of a transmitted signal from an original transmitter received as a received signal to create a response signal wherein, upon receipt of the response signal by the original transmitter, a comparison is made between the transmitted signal and a compensated response signal to determine an indication of intermediate manipulation of the transmitted signal. The claimed invention provides for both the conversion of a received signal as well as the modulation of the received signal with data although the prior art does not provide for both such operations.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."



**CHIEH M. FAN  
PRIMARY EXAMINER**